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EXAMINER

SANTIAGO CORDERO, MARIVELISSE

ART UNIT	PAPER NUMBER
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2687

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/669,235

**Applicant(s)**

TSUI, ERNEST

**Examiner**

Marivelisse Santiago-Cordero

**Art Unit**

2687

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: “451” and “465” in Figure 4. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing-sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The disclosure is objected to because of the following informalities: a period is missing at the end of paragraphs [0002] (page 1) and [0027] (pages 7-8).

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-6 and 8-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jagadeesan et al. (hereinafter "Jagadeesan"; Pub. No.: US 2005/0059400) in view of Chen et al. (hereinafter "Chen"; Patent No.: 6,606,485).

Regarding claim 1, Jagadeesan discloses a method, comprising: searching for a benefit associated with switching from receiving first information from a first network to receiving second information from a second network (Abstract; Fig. 1; page 1, paragraph [0004]; page 4, paragraph [0035]); and a demodulation code to demodulate the second information received from the second network (pages 3-4, paragraph [0030]; note that the code includes logic routines for implementing wireless communication protocols).

Jagadeesan fails to disclose downloading a demodulation code.

However, Chen discloses a method comprising searching for a benefit associated with switching from receiving first to receiving second information (col. 7, lines 8-34); and downloading a demodulation code to demodulate the second information (col. 8, lines 25-34).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to download the demodulation code of Jagadeesan as suggested by Chen.

One of ordinary skill in this art would have been motivated to download a demodulation code because more than one base station may transmit signals at a given frequency (Chen: col. 8, line 17-19).

Regarding claim 2, in the obvious combination, Jagadeesan discloses wherein the second information is a continuation of the first information (page 2, paragraph [0014; note that the information is a call switched between the networks).

Regarding claim 3, in the obvious combination, Chen discloses further comprising: selecting the demodulation code from a plurality of codes (col. 8, lines 25-34).

It would have been obvious to one of ordinary skill in this art to select the demodulation code of Jagadeesan from plurality of codes as suggested by Chen because more than one base station may transmit signals at a given frequency (Chen: col. 8, line 17-19).

Regarding claim 4, in the obvious combination, Jagadeesan discloses further comprising: determining which of a plurality of networks including the second network is available to transmit the second information (page 5, paragraph [0043]).

Regarding claim 5, in the obvious combination, Jagadeesan and Chen (hereinafter "Jagadeesan/Chen") disclose the method of claim 1 (see above). Jagadeesan/Chen fail to disclose it further comprising: selecting a modulation code associated with the demodulation code; and downloading the modulation code.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to select a modulation code associated with the demodulation code and downloading the modulation code. Applicant has not disclosed that selecting a modulation code associated with the demodulation code and downloading the modulation code provides an

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advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the code of Jagadeesan/Chen, which includes software, logic modules, microcode and/or other suitable logic for use by the elements of the mobile station, e.g., logic routines for implementing wireless communication protocols, and which are received by the mobile station and allows for the base stations to transmit signals at a given frequency because it can be part of the logic routine for implementing wireless communication protocols and for use whenever information needs to be transmitted to the network.

Therefore, it would have been obvious to one of ordinary skill in this art to modify Jagadeesan/Chen to obtain the invention as specified in claim 5.

Regarding claim 6, Jagadeesan discloses a method comprising: determining the existence of a second protocol at a device communicatively coupled to a first protocol (Fig. 1; page 1, paragraph [0014]; page 3, paragraph [0025]); determining a benefit associated with communicatively coupling the device to the second protocol and decoupling the device from the first protocol (Abstract; paragraph [0004]; page 4, paragraph [0035]); and a demodulation code associated with the second protocol (pages 3-4, paragraph [0030]; note that the code includes logic routines for implementing wireless communication protocols).

Jagadeesan fails to disclose downloading to the device a demodulation code.

However, Chen discloses a method comprising searching for a benefit (col. 7, lines 8-34); and downloading to the device a demodulation code (col. 8, lines 25-34).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to download to the device the demodulation code of Jagadeesan as suggested by Chen.

One of ordinary skill in this art would have been motivated to download to the device a demodulation code because more than one base station may transmit signals at a given frequency (Chen: col. 8, line 17-19).

Regarding claim 8, the obvious combination, Jagadeesan discloses wherein the first protocol is included in a first network, and wherein the second protocol is included in a second network (Fig. 1).

Regarding claim 9, the obvious combination, Jagadeesan discloses wherein the first network comprises a wide area network, and wherein the second network comprises a wireless local area network (page 1, paragraphs [0008] and [0011]; page 2, paragraph [0009]; page 3, paragraph [0023]).

Regarding claim 10, in the obvious combination, Jagadeesan discloses further comprising: coupling the device to the first protocol using a first receiver (note that the receiver is inherently present in the mobile station). Moreover, Chen discloses further comprising: determining the existence of the second protocol using a second receiver (col. 2, lines 30-55); and coupling the device to the first protocol using a first receiver (col. 2, lines 30-55).

It would have been obvious to one of ordinary skill in this art at the time of invention by applicant to determine the existence of the second protocol of Jagadeesan using a second receiver as suggested by Chen because each receiver may be independently tuned to a particular frequency (Chen: col. 2, lines 32-55).

Regarding claim 11, in the obvious combination, Chen discloses wherein the first receiver operates on a first frequency band forming a subset of a second frequency band utilized by the second receiver (col. 2, line 30 through col. 3, line 6).

It would have been obvious to one of ordinary skill in this art at the time of invention by applicant to operate the first receiver of Jagadeesan on a first frequency band forming a subset of a second frequency band utilized by the second receiver as suggested by Chen because each receiver may be independently tuned to a particular frequency and allows the mobile station to simultaneously receive signal on more than one frequency from different base stations or different sectors of one base station (Chen: col. 4, lines 11-15).

Regarding claim 12, in the obvious combination, Chen discloses wherein the second receiver acquires sufficient information to select the demodulation code without solicitation (col. 8, lines 25-35).

It would have been obvious to one of ordinary skill in this art to acquire, in the second receiver, sufficient information to select the demodulation code of Jagadeesan without solicitation as suggested by Chen because it would speed up the process of coupling the device to the second protocol.

Regarding claim 13, in the obvious combination, Jagadeesan discloses further comprising: coupling the device to the first protocol using a multiplexed receiver; and determining the existence of the second protocol using the multiplexed receiver (page 2, paragraph [0017]; note that the cellular network receives/transmits packet-switched information that propagates to/from the mobile station; hence, the multiplexed receiver is inherently present).



Regarding claim 14, in the obvious combination, Jagadeesan/Chen disclose the method of claim 6 (see above). Jagadeesan/Chen fail to disclose it further comprising: selecting a modulation code associated with the demodulation code; and downloading the modulation code.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to select a modulation code associated with the demodulation code and downloading the modulation code. Applicant has not disclosed that selecting a modulation code associated with the demodulation code and downloading the modulation code provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the code of Jagadeesan/Chen, which includes software, logic modules, microcode and/or other suitable logic for use by the elements of the mobile station, e.g., logic routines for implementing wireless communication protocols, and which are received by the mobile station and allows for the base stations to transmit signals at a given frequency because it can be part of the logic routine for implementing wireless communication protocols and for use whenever information needs to be transmitted to the network.

Therefore, it would have been obvious to one of ordinary skill in this art to modify Jagadeesan/Chen to obtain the invention as specified in claim 14.

Regarding claim 15, Jagadeesan discloses an article comprising a machine-accessible medium having associated data (pages 3-4, paragraphs [0025] and [0030]), wherein the data, when accessed, results in a machine performing: searching for a benefit associated with switching from receiving first information from a first network to receiving second information from a second network (Abstract; Fig. 1; page 1, paragraph [0004]; page 4, paragraph [0035]);

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and a demodulation code to demodulate the second information received from the second network (pages 3-4, paragraph [0030]; note that the code includes logic routines for implementing wireless communication protocols).

Jagadeesan fails to disclose downloading a demodulation code.

However, Chen discloses a method comprising searching for a benefit associated with switching from receiving first to receiving second information (col. 7, lines 8-34); and downloading a demodulation code to demodulate the second information (col. 8, lines 25-34).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to download the demodulation code of Jagadeesan as suggested by Chen.

One of ordinary skill in this art would have been motivated to download a demodulation code because more than one base station may transmit signals at a given frequency (Chen: col. 8, line 17-19).

Regarding claim 16, in the obvious combination, Jagadeesan discloses determining the existence of all available networks including the second network (page 5, paragraph [0043]). Moreover, Chen discloses selecting the demodulation code from a plurality of codes (col. 8, lines 25-34).

It would have been obvious to one of ordinary skill in this art to select the demodulation code of Jagadeesan from plurality of codes as suggested by Chen because more than one base station may transmit signals at a given frequency (Chen: col. 8, line 17-19).

Regarding claim 17, in the obvious combination, Jagadeesan discloses wherein a value of the benefit is associated with at least one of a network type, a network capability, a network activity level, a signal strength, a quality of service, a bandwidth, a signal-to-noise ratio, a signal-

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to-interference ratio, a multipath condition, a service provider, a monetary cost, user-preferred information, and a user-preferred service (page 4, paragraph [0033]).

Regarding claim 18, in the obvious combination, Jagadeesan discloses selecting the benefit according to a pecuniary relationship (page 2, paragraph [0017], 2<sup>nd</sup> sentence).

Regarding claim 19, in the obvious combination, Jagadeesan/Chen) disclose the article of claim 15. Jagadeesan/Chen fail to wherein the data, when accessed, results in the machine performing: selecting a modulation code associated with the demodulation code; and downloading the modulation code.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to select a modulation code associated with the demodulation code and downloading the modulation code. Applicant has not disclosed that selecting a modulation code associated with the demodulation code and downloading the modulation code provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the code of Jagadeesan/Chen, which includes software, logic modules, microcode and/or other suitable logic for use by the elements of the mobile station, e.g., logic routines for implementing wireless communication protocols, and which are received by the mobile station and allows for the base stations to transmit signals at a given frequency because it can be part of the logic routine for implementing wireless communication protocols and for use whenever information needs to be transmitted to the network.

Therefore, it would have been obvious to one of ordinary skill in this art to modify Jagadeesan/Chen to obtain the invention as specified in claim 19.

Regarding claims 20 and 21, Jagadeesan discloses an apparatus (Fig. 2, i.e., the mobile station), comprising: a receiver to search for a benefit associated with switching from receiving first information from a first network to receiving second information from a second network (Abstract; Fig. 1; page 1, paragraph [0004]; page 4, paragraph [0035]; note that the receiver is inherently present); a module for a demodulation code to demodulate the second information (Fig. 2; reference numerals 44 and 56; pages 3-4, paragraph [0030]; note that the code includes logic routines for implementing wireless communication protocols); and a processor to couple to the receiver and to the module for the demodulation code (Fig. 2, reference numeral 42; page 3, paragraph [0029]).

Jagadeesan fails to disclose the module to download a demodulation code and a demodulator operated by accessing the demodulation code (claim 21).

However, Chen discloses an apparatus (Fig. 2; col. 3, lines 50-52) comprising a receiver to search for a benefit associated with switching from receiving first to receiving second information (col. 7, lines 8-34); a module to download a demodulation code to demodulate the second information (col. 8, lines 25-34); and a demodulator operated by accessing the demodulation code (Fig. 2, reference numeral 230; col. 8, lines 25-28).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to use the module of Jagadeesan to download the demodulation code as suggested by Chen.

One of ordinary skill in this art would have been motivated use the module to download the demodulation code because more than one base station may transmit signals at a given frequency (Chen: col. 8, line 17-19).

Regarding claim 22, in the obvious combination, Jagadeesan discloses wherein the receiver comprises a multiplexed receiver to couple the processor to the first network and the second network (page 2, paragraph [0017]; note that the cellular network receives/transmits packet-switched information that propagates to/from the mobile station; hence, the multiplexed receiver is inherently present).

Regarding claim 23, in the obvious combination, Chen discloses further comprising: a second receiver to couple the processor to the first network and to the second network (col. 2, lines 30-55).

It would have been obvious to one of ordinary skill in this art at the time of invention by applicant to incorporate a second receiver, to couple the processor to the first network and to the second network of Jagadeesan, as suggested by Chen because each receiver may be independently tuned to a particular frequency (Chen: col. 2, lines 32-55).

Regarding claim 24, Jagadeesan discloses a system, comprising: a receiver to search for a benefit associated with switching from receiving first information from a first network to receiving second information from a second network (Abstract; Fig. 1; page 1, paragraph [0004]; page 4, paragraph [0035]; note that the receiver is inherently present); a module for a demodulation code to demodulate the second information (Fig. 2; reference numerals 44 and 56; pages 3-4, paragraph [0030]; note that the code includes logic routines for implementing wireless communication protocols); and a processor to couple to the receiver and to the module for the demodulation code (Fig. 2, reference numeral 42; page 3, paragraph [0029]); and an omnidirectional antenna to couple to the receiver (Fig. 2, reference numeral 48).

Jagadeesan fails to disclose the module to download a demodulation code.

However, Chen discloses a system comprising a receiver to search for a benefit associated with switching from receiving first to receiving second information (col. 7, lines 8-34); and a module to download a demodulation code to demodulate the second information (col. 8, lines 25-34).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to use the module of Jagadeesan to download the demodulation code as suggested by Chen.

One of ordinary skill in this art would have been motivated use the module to download the demodulation code because more than one base station may transmit signals at a given frequency (Chen: col. 8, line 17-19).

Regarding claim 25, in the obvious combination, Jagadeesan discloses further comprising: a comparison module coupled to the receiver to compare a value of the benefit (Fig. 3, reference numerals 104 and 106).

Regarding claim 26, in the obvious combination, Jagadeesan discloses wherein the value of the benefit is associated with at least one of a network type, a network capability, a network activity level, a signal strength, a quality of service, a bandwidth, a signal-to-noise ratio, a signal-to-interference ratio, a multipath condition, a favored service provider, a monetary cost, user-preferred information, and a user-preferred service (Fig. 3, reference numeral 102; (page 4, paragraph [0033]).

Regarding claim 27, in the obvious combination, Chen discloses further comprising: a second receiver to couple the processor to the first network and to the second network (col. 2, lines 30-55).

It would have been obvious to one of ordinary skill in this art at the time of invention by applicant to incorporate a second receiver, to couple the processor to the first network and to the second network of Jagadeesan, as suggested by Chen because each receiver may be independently tuned to a particular frequency (Chen: col. 2, lines 32-55).

Regarding claim 28, in the obvious combination, Jagadeesan discloses wherein an information type associated with the first information is the same as an information type associated with the second information (page 2, paragraph [0014; note that the information type is a call switched between the networks).

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jagadeesan/Chen as applied to claim 6 above, and further in view of Petrus (Pub. No.: US 2004/0266474).

Regarding claim 7, Jagadeesan/Chen disclose the method of claim 6 (see above). Jagadeesan/Chen fail to disclose, wherein the first protocol and the second protocol are included in a single network.

However, Petrus, in the same field of endeavor, discloses wherein the first protocol and the second protocol are included in a single network (page 6, paragraph [0092]).

It would have been obvious to one of ordinary skill in this art at the time of invention by applicant to include the first protocol and the second protocol of Jagadeesan/Chen in a single network as suggested by Petrus.

One of ordinary skill in this art would have been motivated to include the first protocol and the second protocol in a single network because it would allow the mobile station to communicate voice and/or data with the system (Petrus: page 6, paragraph [0092]).

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7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gilhousen et al. (Patent No.: 5,109,390) discloses a searcher receiver indicative of the signal with greatest strength and demodulation; Pekonen (Pub. No.: US 2005/0009523) discloses transmission of data packets encoded with a forward error correcting code during handover; Mochizuki (Pub. No.: US 2002/0082038) discloses base station selection and data demodulation in handovers; and Edlis et al. (Pub. No.: US 2001/0028674) discloses a dual-mode communication system and method for searching for stronger signals.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marivelisse Santiago-Cordero whose telephone number is (571) 272-7839. The examiner can normally be reached on Monday through Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**RAFAEL PEREZ-GUTIERREZ**  
**PATENT EXAMINER**  
7/7/05